wherein the plurality of solder bumps bond the optical device substrate to the device bonding surface with the one or more optical devices aligned with the one or more optical lenses.

4. (Amended) An optoelectronic device, comprising:

an optical device system comprising an optical device substrate supporting one or more optical devices and a solderable metallization pattern having a spatial arrangement with respect to the one or more optical devices;

B2 Sub D1

an optical lens system comprising one or more optical lenses and a device bonding surface supporting a solderable metallization pattern having a spatial arrangement with respect to the one or more optical lenses, wherein the optical lens system comprises an optical substrate incorporating the one or more lenses and the device bonding surface defines one face of a spacer substrate; and

a plurality of solder bumps disposed between the metallization patterns of the optical device system and the optical lens system;

wherein the plurality of solder bumps bond the optical device substrate to the device bonding surface with the one or more optical devices aligned with the one or more optical lenses.

11. (Amended) An optoelectronic device, comprising:

B3

an optical device system comprising an optical device substrate supporting one or more optical devices and a solderable metallization pattern having a spatial arrangement with respect to the one or more optical devices;

an optical lens system comprising one or more optical lenses and a device bonding surface supporting a solderable metallization pattern having a spatial arrangement with respect to the one or more optical lenses; and

a plurality of solder bumps disposed between the metallization patterns of the optical device system and the optical lens system, wherein the plurality of solder bumps bond the optical device substrate to the device bonding surface with the one or more optical devices aligned with the one or more optical lenses, and, wherein a characteristic dimension of the plurality of solder bumps is selected based upon a representative focal distance between the one or more optical devices and the one or more optical lenses.

B3 12. The optoelectronic device of claim 4, wherein the one or more optical devices comprises a vertical cavity surface emitting laser or a detector, or both.

Please add the following new claims.

21. The optoelectronic device of claim 4, wherein the one or more optical lenses are incorporated into the device bonding surface.

22. The optoelectronic device of claim 4, wherein the one or more optical lenses are recessed below the device bonding surface.

B4

23. The optoelectronic device of claim 4, wherein multiple optical lenses are cooperatively arranged in optical alignment with each optical device.

Sub C2

24. The optoelectronic device of claim 8, wherein multiple optical devices are arranged for optical communication through each spacer substrate aperture.

Sub B4

25. The optoelectronic device of claim 13, wherein the one or more optical lenses are recessed below the device bonding surface.

Sub C3

26. The optoelectronic device of claim 13, wherein multiple optical lenses are cooperatively arranged in optical alignment with each optical device.

27. The optoelectronic device of claim 13, wherein multiple optical devices are arranged for optical communication through each spacer substrate aperture.